

**PROCESS FOR TRANSFERRING A LAYER OF
STRAINED SEMICONDUCTOR MATERIAL**

ABSTRACT

The invention relates to a process for producing an electronic structure that includes a thin layer of strained semiconductor material from a donor wafer. The donor wafer has a lattice parameter matching layer that includes an upper layer of a semiconductor material having a first lattice parameter and a film of semiconductor material having a second, nominal, lattice parameter that is substantially different from the first lattice parameter and that is strained by the matching layer. This process includes transfer of the film to a receiving substrate. The invention also relates to the semiconductor structures that can be produced by the process.